

## ABSTRACT OF THE DISCLOSURE

Fiber-polymer-composite structure core includes array of unidirectional fiber-columns that can be optimized for structure robustness and/or weight. The unidirectional columns extend through the core between at-least-perpendicular core surface sections in a manner that allows the columns to bond to- and to transfer forces between- composite-structure skin-sections. The columns can be fiber-polymer composite, all fiber, or all fiber that become fiber-polymer composite when a cored composite structure is produced.